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## NCAM1 (CD56) (MY31) Mouse mAb (PE Conjugate)

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> FC-FP, FC-L	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG1 kappa	<b>UniProt ID:</b> #P13591	<b>Entrez-Gene Id:</b> 4684
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized) Flow Cytometry (Live)	<b>Dilution</b> 1:20 1:20
<b>Storage</b>	Supplied in 10 mM NaH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, 0.09% NaN <sub>3</sub> , 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity/Sensitivity</b>	NCAM1 (CD56) (MY31) Mouse mAb (PE Conjugate) recognizes endogenous levels of total NCAM1 (CD56) protein. This antibody detects an epitope within the extracellular domain.	
<b>Source / Purification</b>	This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.	
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to PE and tested in-house for direct flow cytometric analysis in human cells.	
<b>Background</b>	NCAM (neural cell adhesion molecule, CD56) is an adhesion glycoprotein with five extracellular immunoglobulin-like domains followed by two fibronectin type III repeats. Structural diversity is introduced by alternative splicing resulting in different cytoplasmic domains (1). NCAM mediates neuronal attachment, neurite extension, and cell-cell interactions through homo and heterophilic interactions. PSA (polysialic acid) post-translationally modifies NCAM and increases the metastatic potential of small cell lung carcinoma, Wilms' tumor, neuroblastoma, and rhabdomyosarcoma (2). CD56 is commonly used along with CD3 and CD16 to identify human natural killer (NK) cells (mouse NK cells do not express CD56) (3). Human NK cells are CD3-CD56+. The large subset with high CD16 expression are mature cytotoxic NK cells, while those with low CD16 expression are immature precursors and cytokine producers (4,5).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Cunningham, B. A. et al. (1987) <i>Science</i> 236, 799-806.</li> <li>Seidenfaden, R. et al. (2003) <i>Mol. Cell. Biol.</i> 23, 5908-5918.</li> <li>Hayakawa, Y. et al. (2006) <i>Immunol Rev</i> 214, 47-55.</li> <li>Robertson, M.J. and Ritz, J. (1990) <i>Blood</i> 76, 2421-38.</li> <li>Poli, A. et al. (2009) <i>Immunology</i> 126, 458-65.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized) <b>FC-L:</b> Flow Cytometry (Live)
<b>Cross-Reactivity Key</b>	<b>H:</b> Human
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